

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-68 (Canceled).

69. (Previously Presented) A method for supplementing a flow of blood to a portion of the cardiovascular system of a patient, the method comprising:

(a) inserting a catheter device into the vasculature of the patient and advancing the catheter device to a first location within a first coronary vessel within the cardiovascular system;

(b) guiding the catheter device through an interstitial passageway formed between the first location and a second location within a second coronary vessel within the cardiovascular system; the second location within the second coronary vessel being distal to an obstruction in the second coronary vessel; and

(c) forming a blood flow path from a heart chamber directly to the second coronary vessel.

70. (Previously Presented) The method according to claim 69, wherein forming a blood flow path from the heart chamber directly to the second coronary vessel includes placing a conduit in a heart wall between the heart chamber and the second coronary vessel.

71. (Previously Presented) The method according to claim 69, wherein the interstitial passageway is formed through a wall of the first coronary vessel and through

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a wall of the second coronary vessel between the first and second locations.

72. (Previously Presented) The method according to claim 69, wherein the second coronary vessel is a coronary artery.

73. (Previously Presented) The method according to claim 72, wherein the coronary artery is a left anterior descending coronary artery.

74. (Previously Presented) The method according to claim 72, wherein the first coronary vessel is a coronary vein proximate to the coronary artery.

75. (Previously Presented) The method according to claim 74, wherein the first coronary vessel is a great cardiac vein.

76. (Previously Presented) A method for supplementing a flow of blood to a portion of the cardiovascular system of a patient, the method comprising:

(a) inserting a catheter device into the vasculature of the patient and advancing the catheter device to a first location within a first coronary vessel within the cardiovascular system;

(b) guiding the catheter device through a first interstitial passageway formed between the first location and a second location within a second coronary vessel within the cardiovascular system;

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(c) advancing the catheter device to a third location within the second coronary vessel;

(d) guiding the catheter device through a second interstitial passageway formed between the third location and a fourth location within the first coronary vessel; the fourth location being distal to an obstruction in the first coronary vessel; and

(e) forming a blood flow path from a heart chamber directly to the first coronary vessel.

77. (Previously Presented) The method according to claim 76, wherein forming a blood flow path from the heart chamber directly to the first coronary vessel includes placing a conduit in a heart wall between the heart chamber and the first coronary vessel.

78. (Previously Presented) The method according to claim 76, wherein:

(a) the first interstitial passageway is formed through a wall of the first coronary vessel and through a wall of the second coronary vessel between the first and second locations; and

(b) the second interstitial passageway is formed through a wall of the second coronary vessel and through a wall of the first coronary vessel between the third and fourth locations.

79. (Previously Presented) The method according to claim 76, wherein the first coronary vessel is a coronary artery.

80. (Previously Presented) The method according to claim 79, wherein the coronary artery is a left anterior descending coronary artery.

81. (Previously Presented) The method according to claim 79, wherein the second coronary vessel is a coronary vein proximate to the coronary artery.

82. (Previously Presented) The method according to claim 81, wherein the first coronary vessel is a great cardiac vein.

83. (Previously Presented) A catheter for directing a guidewire device substantially laterally with respect to a body passage within which the catheter is introduced, comprising:

an elongate member having proximal and distal ends, having a distal portion adapted for insertion within a body passage, and defining a longitudinal axis and an outer peripheral surface;

a lumen extending between the proximal end and a peripheral opening in the distal portion; and

a deflecting member adjacent the peripheral opening for directing a guidewire device substantially laterally with respect to the longitudinal axis.

84. (Previously Presented) The catheter of claim 83, wherein the deflecting

member has a predetermined acute deflection angle for directing the guidewire device substantially distally and laterally.

85. (Previously Presented) The catheter of claim 83, wherein the guidewire device comprises a needle assembly having a guidewire lumen extending therethrough.

86. (Previously Presented) The catheter of claim 83, further comprising an orientation element on the distal portion having a predetermined relationship with the peripheral opening.

87. (Previously Presented) A catheter for directing a guidewire substantially laterally with respect to a body passage within which the catheter is introduced, comprising:

an elongate member having proximal and distal ends, having a distal portion adapted for insertion within a body passage, and defining a longitudinal axis and an outer peripheral surface;

a first lumen extending proximally from a first opening in the distal end; and

a second lumen extending between the proximal end of the elongate member and a second lateral opening in the distal portion proximate the distal end.

88. (Previously Presented) The catheter of claim 87, wherein the second lateral opening is located on the peripheral surface of the elongate member.

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89. (Previously Presented) The catheter of claim 87, wherein the second lumen includes a deflection ramp adjacent the second lateral opening.

90. (Previously Presented) The catheter of claim 87, wherein the first lumen has a peripheral opening.

91. (Previously Presented) The catheter of claim 90, wherein the peripheral opening is in the distal portion.

92. (New) A device for delivering a conduit through the wall of a patient's heart and the wall of a coronary vessel to communicate a heart chamber with the coronary vessel, the device comprising:

a support member configured for placement through the wall of a heart so that a portion of the support member extends into a heart chamber;

an expandable conduit sized and configured for placement in the heart wall so as to communicate the heart chamber with a coronary vessel, wherein the conduit is supported on the support member in a collapsed orientation and is expanded to an expanded orientation for placement in the heart wall; and

wherein the support member has an expansion mechanism that engages the conduit and is actuated to move the conduit from the collapsed orientation to the expanded orientation to securely position the conduit in the heart wall.

93. (New) The device of claim 92, wherein the distal end of the support

member is sharpened for forming an opening in the wall of the heart.

94. (New) The device of claim 92, wherein the support member comprises a hollow member that removably receives a dilator having a sharpened tip for forming an opening in the heart wall.

95. (New) The device of claim 92, further comprising a positioning member for engaging tissue to control the position of the conduit with respect to the heart wall.

96. (New) A method for placing a conduit in the wall of a patient's heart, the method comprising steps of:

- (a) providing a support member and a conduit;
- (b) passing the support member and the conduit through a wall of a coronary vessel and through the wall of a patient's heart;
- (c) positioning the conduit within the wall of the heart; and
- (d) removing the support member from the wall of the heart.

97. (New) The method of claim 96, wherein the conduit is expandable and the support member is provided with an expandable member that supports and expands the conduit, and further comprising the step of expanding the conduit within the wall of the heart.

98. (New) The method of claim 96, wherein step (b) is carried out by passing

a sharpened end of the support member through the wall of the heart.

99. (New) The method of claim 96, wherein step (b) is carried out by first forming an opening extending at least partially through the wall of the heart and then passing the support member through the opening.

100. (New) The method of claim 96, wherein the conduit is passed through a wall of a coronary vessel and through the wall of the heart into a heart chamber containing oxygenated blood, and the conduit is positioned so as to place the heart chamber in communication with the interior of the coronary vessel.

101. (New) The method of claim 99, wherein the coronary vessel is a coronary artery and the heart chamber is the left ventricle.

102. (New) The method of claim 100, wherein the support member is positioned within the coronary vessel while carrying out steps (b) and (c) and then is removed from the vessel.

103. (New) A method for placing a conduit in the wall of a patient's heart at a selected position with respect to the heart wall, the method comprising steps of:

(a) providing a support member and a conduit, the support member having a positioning member disposed at a predetermined location with respect to the conduit;

(b) passing the support member and the conduit through a wall of a coronary

vessel and through the wall of a patient's heart;

(c) locating the positioning member against tissue to place the conduit at a selected location within the wall of the heart; and

(d) removing the support member and leaving the conduit in the wall of the heart.

104. (New) A method for placing and expanding a conduit in the wall of a patient's heart, the method comprising steps of:

(a) providing a support member and a conduit, the conduit being supported in a collapsed orientation and movable to an expanded orientation;

(b) placing the support member and the conduit in a wall of a patient's heart;

(c) positioning the conduit within the wall of the heart;

(d) expanding the conduit to the expanded orientation; and

(e) removing the support member and leaving the conduit in the wall of the heart.

105. (New) The method of claim 104, wherein the conduit is passed through a wall of a coronary vessel and through the wall of the heart into a heart chamber containing oxygenated blood, the conduit placing the heart chamber in communication with the interior of the coronary vessel.

106. (New) The method of claim 105, wherein the coronary vessel is a coronary artery and the heart chamber is the left ventricle.

107. (New) The method of claim 105, wherein the conduit is positioned in the

wall of the heart so that one end of the conduit extends partially into the heart chamber.

108. (New) The method of claim 104, further comprising a positioning member for engaging the heart wall to control the position of the conduit with respect to the heart wall.

109. (New) A method for introducing a medical device through a coronary vessel and the wall of a patient's heart to perform a medical procedure, the method comprising steps of:

positioning a guide member through a coronary vessel and the wall of a patient's heart into a heart chamber;

providing a medical device configured to carry out a medical procedure on the heart; and

using the guide member to introduce the medical device into the heart wall.